

House Standing Committee on Commerce - Public Testimony
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Mister Chairman and members of the Committee, I am honored to appear before you today as an individual who is involved with Automation Alley to address issues of importance concerning the viability of certain aspects of the Michigan economic picture.

By way of introduction, in July 2004 I completed 33 years of service as a Soldier. In that period that stretched from 1971 to last year, I was privileged to lead some of America's finest sons and daughters in such places as Kentucky, Texas, Germany, Maryland, Kansas, Washington, DC, and most recently in Michigan. The last 13 years of my military career were spent in Michigan leading some of the most significant Army and Marine Corps modernization programs from offices at the Tank-automotive and Armaments Command (TACOM) in Warren. Included in the portfolio of programs which I was honored to lead was the M1A2 Abrams tank, the Stryker Brigade Combat Team, and the Army's most ambitious program—Future Combat Systems. I was honored to have attained the rank of Brigadier General, and was retired at that rank in July 2004. Forsaking other opportunities, I chose to make Michigan my home.

Upon my retirement I sought out Mr. Ken Rogers, Executive Director of Automation Alley in Troy. I did so because I wanted to serve my community by providing some small measure of support to the members of this essential industry-academic-government consortium. The offer I made to Ken was very simple—I will provide voluntarily advice and assistance to members of Automation Alley who might want to break into the Defense or Homeland Security sectors. I would ask nothing in return except for the opportunity to meet with technology companies and provide them some sense of where National Security needs and their core capabilities converge.

I did this because I strongly believe that there is a natural synergy between the needs of the Federal government to develop, deploy, and sustain essential technology and the needs of Michigan businesses to be the best value suppliers of goods and services to America's Warfighters whether in the DOD or DHS. I believe this because at TACOM in Warren we have a substantial installed base of program managers, engineers, logisticians, and business men and women who know how to translate the Warfighting needs of Soldiers and Marines into products that serve the Nation's defense whether in some distant hostile land or closer to home along our normally open borders. These professionals are located at the Detroit Arsenal—America's Arsenal of Democracy—at the Tank-automotive and Armaments Command and at the Tank Automotive Research and Development Center.

From the Detroit Arsenal—an installation that successfully avoided nomination for realignment or closure partially because of its unique relationships with Michigan's automotive centers—almost every major piece of combat and support equipment in the hands of Soldiers and Marines is developed, deployed, and supported. The several Program Executive Officers at TACOM and the companion research, development, and engineering facilities at TARDEC provide the critical mass to ensure America's superiority in not only combat and support vehicles and associated ordnance, but also such emerging fields as:

- Robotics, sensor fusion, nanotechnology, advanced propulsion, special armors, distributed command and control, lightweight materials and structures, agile manufacturing, immersive and collaborative development and training to name only a few.

The opportunities for dual use—that is, both for commercial as well as defense application—for some of these items of special interest are many, but there are only limited opportunities to share with defense program managers the capability of some of the more innovative and entrepreneurial members of Michigan's high technology business community. I offered to Ken and his staff to be one conduit for such sharing because I believe it is essential to identify to appropriate industry and government officials where there are opportunities to provide innovative solutions to Warfighting needs or application of commercial products or processes to fill voids in defense requirements.

What the defenders of America's security need are agile and adaptive solutions in areas such as:

- Mobility, security, safety, vehicle operation, information technology, advanced electronics, high reliability and durability, lean manufacturing, and business reinvention.

All of these are available here in Michigan, and it is one aspect of organizations such as Automation Alley to bridge the gaps in awareness of need and application of solutions.

What I have seen so far is highly encouraging, if not outright excellent. Let me cite only five examples:

Global ET of Farmington Hills is a software engineering and integration firm specializing in electronic module development, data acquisition and testing, and data management and analysis. Their core competency is integration—the essential ingredient in deployment of high technology developmental items and ideas.

KnoHoww of Bloomfield Hills offers a solution to repair of damaged vehicles that stresses maximization of the inherent material and fabrication specifications of product data to reduce delay in returning equipment to serviceable condition. The application of this capability to the DOD is return of battle damaged equipment to Soldiers' use while reducing the volume of material in the supply chain.

Altair Engineering of Troy is a premiere integrator at work today on solutions to revitalize public transportation in America. It is also a powerhouse in development and deployment of unique engineering and training tools that allow real-time collaboration among multiple users. The end result is higher fidelity in the development of suitable solutions to rigorous requirements.

Focus: Hope in Detroit has long been a recognized and essential partner with the Detroit Arsenal. Through its Center for Advanced Technology it is today providing critical replacement parts for Army vehicles in the Central Command area of operations.

Intrepid Defense and Security Systems of Birmingham has developed and demonstrated unique holographic tools that allow three-dimensional visualization without special glasses. This technology will allow not only immersive engineering, but also advanced surgery through telemedicine. This is a truly exciting capability in life science that has high potential for alternative applications once the right people are brought together.

The point of all of this is simple—**Technology answers to problems envisioned in one sector have applicability to a whole range of challenges in another sector.** The process of aligning solutions with requirements is too haphazard and not nearly as focused as it must be if the Nation is to reap the rewards of all that Michigan's substantial high technology providers have to offer. These are offerings that are not limited to the automotive industry, but are in the rapidly expanding realm of electronics, information, manufacturing science, and product data management.

Michigan must take on a leadership role in development and deployment of advanced solutions to critical defense and security needs and I am pleased to see this committee further the debate and discussion of proposals that include investments in R&D as well as commercialization of technology in Defense and Homeland Security. I understand that HB 5047 is one of many pending proposals that the Legislature is considering and I support the continued efforts that this committee along with the Senate and Executive are making to diversify Michigan's economy.

Michigan is known for its manufacturing and emerging technology sectors and because of this recognition it is natural to utilize the resources available and through policy initiatives such as the ones before this committee, our state will be well positioned to be the provider of essential defense and security systems that address known or emergent threats to the Nation. The broad technology related investments that have been outlined in HB 5047 is a step in the right direction and whether the Legislature secures the tobacco funds or finds another alternative the fact that we are discussing these proposals today is a positive sign.

By making these types of investments, Michigan has the potential of achieving the goal of being the best value supplier of goods and services to both the DOD and DHS. To do this requires a concerted effort supported not only by legislation but also by essential resources so that development and deployment of dual-use technologies become the rule, not the exception. The partner to be sought out exists today—it is the very visible, and now Nationally-recognized Federal enclave in Warren—the Detroit Arsenal.

Again, on behalf of Automation Alley thank you for giving me this opportunity to address each of you and I appreciate the direction that the Legislature and Executive are taking in terms of bringing these proposals and issues forward.